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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,418	07/13/2001	Sunil Kulkarni	US 019011	4726

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
SUNG, CHRISTINE	

ART UNIT	PAPER NUMBER
2884	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/905,418	KULKARNI ET AL.	
	Examiner	Art Unit	
	Christine Sung	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10,11,14,15 and 20-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10,11,14,15 and 20-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The Amendment filed on June 13, 2006 has been accepted and entered.

2. The Request for Continued Examination file on June 13, 2006 has been accepted and entered.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 23-26 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method or system for imaging without requiring use of the DICOM format, does not reasonably provide enablement for a method or system for imaging without requiring the use of ALL proprietary image formats. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The scope of enablement is unclear because there is no limitation on what type of proprietary format conversion routines are excluded from the new user data formats. Again, the claims are enabled for those formats that are not in DICOM formats, but not for all formats.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims1-8, 10-11, 14-15 and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashburn (US Patent 5,742,060) in view of Wang et al. (*Potential Use of Extenisble Markup Language for Radiology Reporting: A Tutorial,* RadioGraphics Jan-Feb 2000, Volume 20, Pgs 287-293.)

Regarding claims 1-2, Ashburn discloses a nuclear camera system (Figure 2) comprising:

A detector (element 200) which acquires radionuclide event data;

An image processor (element 450) which processes the event data to produce image data;

An image data storage medium (element 614) which stores the image data; and

An image data processor which formats the image data for storage on the storage medium in a format that is compatible with existing imaging cameras and also in a format that can be readily delivered over the web or internet or data link (column 23, line 61- column 24, line 14). Ashburn does not explicitly state that the image processor processes the data into an open and extensible format. However, Wang et al discloses XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility,

structure, and data checking..." (Page 288). Further XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format that is compatible with existing imaging cameras, one of ordinary skill in the art would be motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the image data so that it can be more easily viewed/or used from one imager to another.

Regarding claim 3, Wang discloses that XML is self descriptive or self defining (See page 287).

Regarding claims 4-5, Wang discloses using format definitions or data element definitions (Page 288) for associating various pieces of image data.

Regarding claims 6-8, Wang and Ashburn both disclose saving images in files, but do not explicitly state using pointers to point to a file/address/URL, however pointers are well known and conventional programming elements used to address files.

Regarding claims 10-11, Ashburn further discloses a control data/calibration parameter storage medium to an acquisition controller that stores control data/calibration parameters (column 24, lines 60-67). Ashburn does not explicitly state that the acquisition controller stores the data into an open and extensible format. However, Wang et al discloses XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities

into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format that is compatible with existing imaging cameras, one of ordinary skill in the art at the time the invention was made would have been motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the control data/calibration parameters so that the image data can be more easily manipulated/corrected from one image data set to another.

Regarding claims 14-15, Ashburn discloses a radiation based diagnostic imaging system (figure 2) including:

A detector which acquires radiation data (element 200);

An image processor which processes the radiation data to produce image data (element 450);

a control data/calibration parameter storage medium to an acquisition controller that stores control data/calibration parameters (column 24, lines 60-67); and

An acquisition controller which controls the acquisition of the radiation data (element 400).

Ashburn does not explicitly state that the acquisition controller stores the data into an open and extensible format. However, Wang et al discloses XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format

that is compatible with existing imaging cameras, one of ordinary skill in the art at the time the invention was made would have been motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the control data/calibration parameters so that the image data can be more easily manipulated/corrected from one image data set to another.

Further, Ashburn and Wang to do explicitly state that the acquisition controller executes a script using an XML file to control the acquisition of radiation data. However, it would be obvious to one having ordinary skill in the art at the time the invention was made to have use XML files to execute all programs within the imager in order to increase the ease by which data can be transferred from one imager to another.

Regarding claim 20, Ashburn disclose a diagnostic imaging system including:

A detector which acquires diagnostic data (element 200);

An image processor which processes the diagnostic data to produce image data (element 450);

An acquisition controller which controls the acquisition of the diagnostic data (element 400);

A control data/calibration parameter storage medium to an acquisition controller that stores control data/calibration parameters (column 24, lines 60-67);

An image data storage medium (element 614) which stores the image data; and

A server (element 602 and column 6, lines 13-16) coupled to the control data storage medium (column 24, lines 60-67) and the image data storage medium (element 614) which

server accesses at least one of the control data files and image data files and executes scripts which utilize control data files.

Ashburn does not explicitly state that all of the data and scripts are in an open and extensible format. However, Wang et al discloses XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format that is compatible with existing imaging cameras, one of ordinary skill in the art at the time the invention was made would have been motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the collected data so that it can be more easily manipulated/corrected from one image data set to another.

Regarding claim 21, Ashburn discloses a nuclear camera system (Figure 2) comprising:

A detector (element 200) which acquires radionuclide event data;

An image processor (element 450) which processes the event data to produce image data;

a control data/calibration parameter storage medium to an acquisition controller that stores control data/calibration parameters (column 24, lines 60-67); and

An acquisition controller which controls the acquisition of the radiation data (element 400).

Ashburn does not explicitly state that the acquisition controller stores the data into an open and extensible format. However, Wang et al discloses XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format that is compatible with existing imaging cameras, one of ordinary skill in the art at the time the invention was made would have been motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the control data/calibration parameters so that the image data can be more easily manipulated/corrected from one image data set to another.

Regarding claim 22, Ashburn discloses a nuclear camera system (Figure 2) comprising:

A detector (element 200) which acquires radionuclide event data;

An image processor (element 450) which processes the event data to produce image data;

a control data/calibration parameter storage medium to an acquisition controller that stores control data/calibration parameters (column 24, lines 60-67); and

An acquisition controller which controls the acquisition of the radiation data (element 400); and

A user interface (column 6, lines 7-23) and a server (element 602 and column 6, lines 13-16), responsive to the user interface and coupled to the control data storage medium and image data storage medium, which responds to user command that executes scripts.

Ashburn does not explicitly state that all of the data and scripts are in an open and extensible format. However, Wang et al discloses using XML to report/store radiological imaging information (Page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Because Ashburn teaches processing the image data in a format that is compatible with existing imaging cameras, one of ordinary skill in the art at the time the invention was made would have been motivated to use the conventional XML format as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the universality of the collected data so that it can be more easily manipulated/corrected from one image data set to another.

Regarding claims 23-25, Ashburn discloses a method of acquiring nuclear medicine images (figure 2) comprising:

Acquiring emission data from an imaged subject (element 200);

Processing the emission data to produce image data (element 450);

Storing the image data (element 614); and

Wherein the image data is stored in a format that allows for such incorporation of new user data format requirements (column 23, line 61- column 24,line 14).

Ashburn does not explicitly state the step of incorporating new user data format requirements into the processing data without requiring a manufacturer's proprietary image format convention routine. However, Wang discloses using XML to report/store radiological

information (page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities into web clients..." (Page 288). Further, Wang discloses incorporating additional reports into the data that is not in the format of the imager (Pages 289-290). One of ordinary skill in the art would be motivated to use the step as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the flexibility with which the data can be manipulated.

Regarding claims 26-27, Ashburn disclose a medical imaging system (figure 2) comprising:

Means for acquiring emission data from an image subject means for processing the emission data to produce image data (element 200);

Means for storing the image data (element 450); and

Wherein the image data is stored in a format that allows for such incorporation of the new user data form at requirements (column 23, line 61- column 24, line 14).

Ashburn does not explicitly state the step of incorporating new user data format requirements into the processing data without requiring a manufacturer's proprietary image format convention routine. However, Wang discloses using XML to report/store radiological information (page 287). Further, XML is a known computer language that was developed in 1997 and is a well known computer language that "preserves key feature - extensibility, structure, and data checking..." (Page 288). Further, XML is attractive for it ability to "incorporate distributed software modules that embed powerful data manipulation capabilities

into web clients..." (Page 288). Further, Wang discloses incorporating additional reports into the data that is not in the format of the imager (Pages 289-290). One of ordinary skill in the art would be motivated to use the step as disclosed by Wang with the invention as disclosed by Ashburn in order to increase the flexibility with which the data can be manipulated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Sung whose telephone number is 571-272-2448. The examiner can normally be reached on Monday- Friday 7-3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christine Sung
Examiner
Art Unit 2884

CS

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